## **CARRIAGE BY HIGHWAY**



### SUBPART A\*

- Part 177 applies to:
- O Private motor carriers
- Common motor carriers and
- Contract motor carriers

\*If no shipping papers required, Subpart A does not apply

## Requirements for hazardous materials accepted and/or transported by:

O Private

O Contract "For-Hire" motor carriers

Shipping papers, marking, labeling and packaging.

6A-03-10/99

#### PART 397—TRANSPORTATION HAZARDOUS MATERIALS; ING AND PARKING RULES

### Subpart A—General

397.1 Application of the rules in this part. 397.2 Compliance with Federal motor car-

397.3 State and local laws, ordinances, and

397.5 Attendance and surveillance of motor

vehicles.

397.7 Parking.

397.9 [Reserved]

397.11 Fires.

397.13 Smoking.

397.15 Fueling.

197 17 Tires.

## Subnat I—Protection Against Shifting or

eral rules for protection against ement systems. ng and bracing

#### t B—Qualification and alification of Drivers

neral qualifications of driv-

on shall not drive a comor vehicle unless he/she is rive a commercial motor nt as provided in §391.63, a

#### ions and documents. Must Comply With Federal Motor Carrier er ial Safety Regulations

Purpose and scop Subpart A 1968, unless

### No Person May Offer or Accept a Hazardous Material for Transportation in Commerce Unless:

- The hazardous material is properly classed, described, packaged, marked
- O In proper condition for shipment.

and

Both Carriers and Shippers are Responsible to Ensure Their Employees are Properly Trained as Required by the HMR

Motor Carriers Must Comply With the HMR and Train Employees in the Prescribed Regulations.

## Additional Training Requirements for Drivers of:

- O Cargo tanks, or
- Vehicles with portable tanks
- State Commercial Driver's License (CDL) required by FMCSR

#### §172.101 HAZARDOUS MATERIALS TABLE

K	Hazardous materials descriptions and proper shipping names	Hazard class or Di- vision	Identifica- tion Num- bers	PG	Label Codes
ľ	(2)	(3)	(4)	(5)	(6)
Ž	lagnesium aluminum phosphide	4.3	UN1419	1	4.3, 6.1.
	lagnesium arsenate lagnesium bisulfite solution, see	6.1	UN1622	II	6.1
V	Bisulfites, aqueous solutions, n.o.s. lagnesium bromate	5.1	UN1473	п	5.1

## Covers both interstate and intrastate transport

#### PART 397—TRANSPORTATION OF HAZARDOUS MATERIALS; DRIV-ING AND PARKING RULES

#### Subpart A-General

Sec.

397.1 Application of the rules in this part.

397.2 Compliance with Federal motor carrier safety regulations.

397.3 State and local laws, ordinances, and regulations.

397.5 Attendance and surveillance of motor vehicles.

397.7 Parking.

397.9 [Reserved]

397.11 Fires.

397.13 Smoking.

397.15 Fueling.

397.17 Tires.

397.19 Instructions and documents.

#### Subpart B [Reserved]

Subpart C—Routing of Non-Radioactive Hazardous Materials

397.61 Purpose and scope.

## Generally applies to interstate transportation

## Determine which FMCSR regulations apply:

- Verify state regulations
- O Differences in regulations

prior to the starting dates in §382.115 of this part.

#### Subpart E—Consequences Drivers Engaging in Substance Use-Related Conduct

#### §382.501 Removal from safety-sensitive function.

(a) Except as provided in subpart F of this part, no driver shall perform safety-sensitive functions, including driving a commercial motor vehicle, if the driver has engaged in conduct prohibited by subpart B of this part or an alcohol or controlled substances rule of another DOT agency.

(b) No employer shall permit any driver to perform:

tor (Mexico) requirements; or

that apply to employers and the re-

himself/herself as a driver shall imple-

(c) The exceptions contained in

§390.3(f) of this subchapter do not apply

to this part. The employers and drivers

identified in \$390.3(f) must comply with

the requirements of this part, unless otherwise specifically provided in para-

This part shall o

graph (d) of this section.

tions, including d § 382.105 motor vehicle, if termined that the (2) The Licencia Federal de Conduc-

this section.

(c) For purposes (3) The commercial driver's license mercial motor ve requirements of the Canadian National mercial motor vel Safety Code. defined in §382.10' (b) An employer who employs himmotor vehicle in selfherself as a driver must comply as defined in Pa with both the requirements in this part chapter.

#### §382.503 Require quirements in this part that apply to drivers. An employer who employs only ing.

No driver who ment a random alcohol and controlled duct prohibited b substances testing program of two or part shall perfe more covered employees in the random ludir testing selection pool.

tions, until the start of the driver's next regularly scheduled duty period, but not less than 24 hours following administration of the test.

(b) Except as provided in paragraph (a) of this section, no employer shall take any action under this part against a driver based solely on test results showing an alcohol concentration less than 0.04. This does not prohibit an employer with authority independent of this part from taking any action otherwise consistent with law.

#### §382.507 Penalties.

Any employer or driver who violates the requirements of this part shall be subject to the penalty provisions of 49

Retention period results or performance by 3 years. raffic, commodities, costs, Until revised as record structure changes. For the remainder of the period as prescribed for records destroyed.

maintained as determined by the designated records supervisory official in requirements of the Internal Revenue Service, Securities and Exchange requisitory agencies. Companies shall exercise reasonable care in choosing shall reflect past experiences, company needs, pending lingation, and requi-

SUB-USE

DOT

382.413 Inquiries for alcohol and controlled substances information from previous emplayers.

#### 49 CFR Ch. III (10-1-98 Edition)

(ii) Firefighters or other persons who operate commercial motor vehicles which are necessary for the preservation of life or property or the execution of emergency governmental functions, are equipped with audible and visual signals, and are not subject to normal traffic regulation.

[61 FR 9553, Mar. 8, 1996, as amended at 62 FR. 1296, Jan. 9, 1997]

#### §382.105 Testing procedures.

Each employer shall ensure that all alcohol or controlled substances testing conducted under this part complies with the procedures set forth in part 40 of this title. The provisions of part 40 of this title that address alcohol or controlled substances testing are made applicable to employers by this part.

#### § 382hefinitions.

used in this part

#### E—Consequences for Drivers Enin Substance Use-Related Con-

§ 382.103

moval from safety-sensitive func-

uired evaluation and testing. ier alcohol-related conduct. nalties.

#### Alcohol Misuse and Controlled inces Use Information, Training, eferral

ployer obligation to promulgate on the misuse of alcohol and use rolled substances.

lining for supervisors. ferral, evaluation, and treatment.

v: 49-11-5-C 31133, 31136, 31301 e

### Open to DOT, for:

- Safety examination and
- O Inspection



#### All Carrier:

- Records
- O Equipment
- Packagings
- Containers

6A-12-10/99

## **URBAN/PUBLIC TUNNELS**

Motor Carriers Transporting Hazardous Materials Must Comply With:

- State statutes
- Municipal ordinances

#### Part 397 of the 49 CFR FMCSR

- Driving and Parking
- Attendance and Surveillance
- Routing Regulations

## ROUTING REQUIREMENTS Part 397

- O Non-Radioactive: Subpart C
- O Radioactive: Subpart D

6A-15-10/99

### **Unless Excepted:**

- A shipping paper must accompany EACH shipment of Hazardous Materials and
- O Be prepared in accordance with:
  - 172.200
  - 172.201
  - 172.202
  - 172.203
- Shipping papers must be retained for one year by the offerer and the carrier.

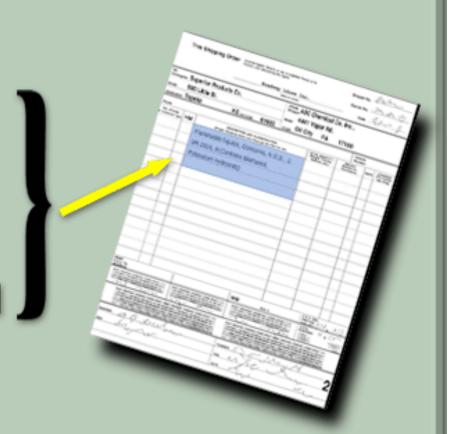
## **INITIAL MOTOR CARRIER**

SHIPPIN	G P/	APE	3
patriops population	deligalg	tquiş	Espo) pits
dydy stopolytopoly: fy	340	ddqafq	digida
. ighys sydophydogli	String	isig igil	49/100/1
Equippe shoult teachers	doleynt)	phyth	phopin
Topid stopidylphylinet	and sele	Stilled	Digitally
styda i digodytopolje. Ig	pitets	stripply	184(68)
delicensistatementalisensoonal			
	- 1	Q T 24	Appendix and

"This is to certify that the abovenamed materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

## Shipping Paper (When Offered to Rail Carrier)

- O Description of:
  - freight container or
  - transport vehicle
- Kind of placard affixed



## Shipping Papers must be:

- Readily available and
- Recognizable
  - distinctly labeled or
  - appears first



#### DRIVER AT VEHICLE CONTROLS

### **Shipping Papers Must Be:**

- Within driver's immediate reach and
- Readily visible or
- In a holder mounted to inside of driver's door

#### DRIVER NOT AT VEHICLE CONTROLS

### **Shipping Papers Must Be:**

- In a holder mounted to inside of driver's door
- On the driver's seat

### CARRIAGE BY PUBLIC HIGHWAY

- **Carrier Must Not Move Transport Vehicles:**
- O Unless marked and placarded
- O Except in Emergency, and:
  - escorted by government representatives or
  - granted permission by DOT or
  - to protect life and property

#### **Disabled Motor Vehicle in Transit**

- Motor Vehicle guard/move to safe place
- Broken/leaking containers handle safely
- O Packages repair/place in a salvage drum

## **Leaking Cargo Tanks**

- Remove from highway
- Contain leak
- Eliminate sources of ignition

## **Movement of Leaking Cargo Tanks**

 To the nearest place for safe removal of contents

#### **Hazardous Materials Must Be:**

- Loaded
- Blocked, Braced and
- Unloaded

In accordance with the prescribed

safeguards



# SPECIAL LOADING AND UNLOADING REQUIREMENTS Class 1 (Explosives)

- Motor vehicle engine must not be running
- No sharp projections inside the vehicle
- Tailgates must be closed
- Cargo must remain in body of vehicle

Storage Batteries With Electrolyte

- Protect against falling cargo
- O Protect/insulate battery terminals



Cylinders Containing Class 2 (Compressed Gas):

- O Lash in an upright position, or
- O Load into securely attached racks, or
- O Pack in boxes or crates/no overturning, or
- Load horizontally

## **SEGREGATION TABLE**

#### SEGREGATION TABLE FOR HAZARDOUS MATERIALS

Class or division		Notes	1.1 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 gas zone A	2.3 gas zone B	3	4.1
Explosives	1.1 and 1.2	A						x	x	x	x	x	x
Explosives	1.3			•		١٠		х		X	х	x	
Explosives	1.4		•	•	•	١٠	•	0		0	0	0	
Very insensitive ex- plosives.	1.5	A	•		•		•	x	X	X	х	X	х
Extremely insensi- tive explosives.	1.6		•		•		•						
Flammable gases .	2.1		x	x	0	x				X	0		
Non-toxic, non-	2.2		X			X							
flammable gases.													

No Restrictions Apply:

- O Blank space in table
- Hazard class or division not in table

	SEGREGATION TABLE FOR HAZARDOUS MATERIALS													
Class or division		Notes	1.1 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 gas zone A	2.3 gas zone B	3	4.1	
Explosives	1.1 and 1.2	A	•					x	x	x	x	x	x	
Explosives	1.3			١.		١٠		x		X	x	x		
Explosives	1.4		•	٠.		١٠		0		0	0	0		
Very insensitive ex- plosives.	1.5	A	•					Х	Х	X	X	X	x	
Extremely insensi- tive explosives.	1.6		•		•		•							
Flammable gases .	2.1		x	x	0	x				X	0			
Non-toxic, non-	2.2		x			X								

X = No

flammable gases.

O = OK, Provided...

A = Fertilizer Allowance

\* = Use Compatibility Table in 177.848(f)

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#### SEGREGATION TABLE FOR HAZARDOUS MATERIALS

Class or Division		Notes	1.1, 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 gas Zone A	2.3 gas Zone B	3	4.1
Explosives	1.1 and 1.2	A			•			x	x	x	х	х	x (
Explosives	1.3		٠.	١.		١.		х		х	х	х	
Explosives	1.4		٠.	١.		١٠		0	l	0	0	0	
Very insensitive explosives	1.5	Α	١٠	١٠	•	١٠	•	х	x	Х	X	х	X A
Extremely insensitive ex- plosives.	1.6		١.		•		•						4
Flammable gases	2.1		x	x	0	x			l	Х	0		
Non-toxic, non-flammable gases.	2.2		х			x						$\overline{}$	
Poisonous gas Zone A	2.3		X	x	0	x		X				x 🕽	X.
Poisonous gas Zone B	2.3		X	X	0	х		0			,		
Flammable liquids	3		×	X	0	X			l	X	0		١ ٦
Flammable solids	4.1		×	l		X			l	Х	0		
Spontaneously combustible materials.	4.2		X	Х	0	×				х	0		۱ (
Dangerous when wet ma- terials.	4.3		x	х		×				х	0		
Oxidizers	5.1	Α	l x	l x		l x			l	х	0	0	١ ٦
Organic peroxides	5.2		x	x		x			l	X	O	-	Ι `
Poisonous liquids PG I Zone A.	6.1		x	x	0	×		0				x	х
Radioactive materials	7		x			x		0	l				
Corrosive liquids	8		x	x	0	x			l	Х	0		0 (

	SEGREGATION TABLE FOR HAZARDOUS MATERIALS													
Class or division		Notes	1.1 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 gas zone A	2.3 gas zone B	3	4.1	
Flammable gases . Non-toxic, non- flammable gases.	2.1 2.2		x	x	0	X X				x	o			
Poisonous gas Zone A	2.3		x	x	0	x		x				х	x	١
Poisonous gas Zone B	2.3		x	x	0	x		0				0	0	П
Flammable liquids .	3		x	x	0	x				x	0			Ш
Flammable solids	4.1		X		l	X				X	0			'
Spontaneously combustible ma- terials.	4.2		X	×	0	x				X	0			
Dangerous when wet materials.	4.3		x	×		x				x	0			
Oxidizers	5.1	Α	X	X		X				X	0	0	•	1
Organic peroxides .	5.2		×	×		×				x	0			

	SEGREGATION TABLE FOR HAZARDOUS MATERIALS														
Class or division		Notes	1.1 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 gas zone A	2.3 gas zone B	3	4.1	1	
Explosives	1.1 and 1.2	A						x	x	x	x	x	x		
Explosives	1.3		١٠	١٠	١.	١٠	١٠	x		x	x	x			
Explosives	1.4		١٠	١٠	١.	١٠	١.	0		0	0	0			
Very insensitive ex- plosives.	1.5	A						x	x	x	x	x	x	_	
Extremely insensi- tive explosives	1.6													١	

Flammable ga Non-toxic, nor flammable (

ŀ	COMPATIBILITY TABLE FOR CLASS 1 (EXPLOSIVE) MATERIALS													
1	Compatibility group	A	8	С	D	E	F	G	н	J	к	L	N	s
J	A		x	x	x	X	x	x	x	x	x	x	X	x
۰	B	X		X	4	X	X	X	X	X	X	X	X	4/5
ı	C	X	X		2	2	X	X	X	X	X	X	3	4/5
ш	D	X	4	2		2	X	X	X	X	X	X	3	4/5
ľ		X	X	2	2		X	X	X	X	X	X	3	4/5
и		X	X	X	X	X		X	X	X	X	X	X	4/5
ľ	G	X	X	X	X	X	X		X	X	X	X	X	4/5
и	4	X	X	X	X	X	X	X		X	X	X	X	4/5
ŀ		X	X	X	X	X	X	X	X		X	X	X	4/5
ľ	ζ	X	X	X	X	X	X	X	X	X		X	X	4/5
ľ		X	X	X	X	X	X	X	X	X	X	1.	X	X
ı	4	X	X	3	3	3	X	X	X	X	X	X		4/5
ľ	§	X	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	X	4/5	
ш		•												

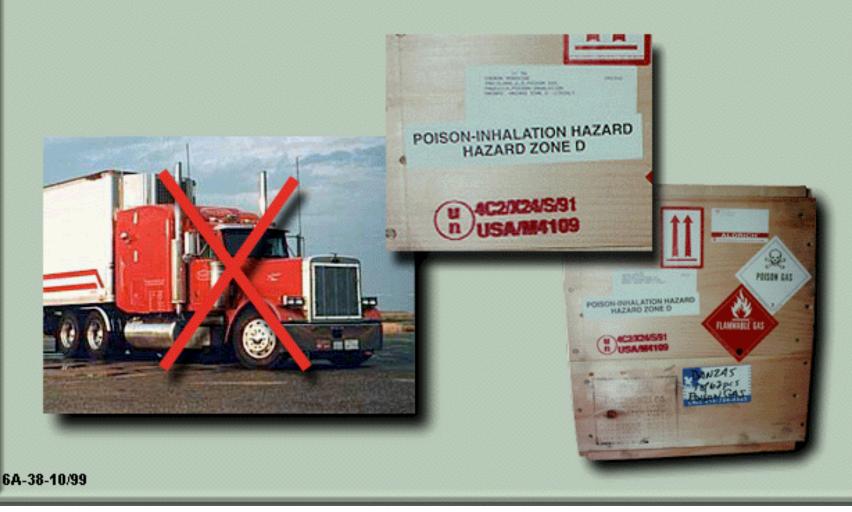
Use Both Tables to Properly Load, Transport or Store Together

Packages Labeled "POISON" or "POISON INHALATION HAZARD"

- Do not transport with food or animal feed unless
- Overpacked in metal drums authorized in 173.25(c) or
- Loaded in closed unit load device and food/animal feed is in another closed unit











Transport Index (TI)

Total Transport Index of All Packages Must Not Exceed 50 TI

6A-39-10/99

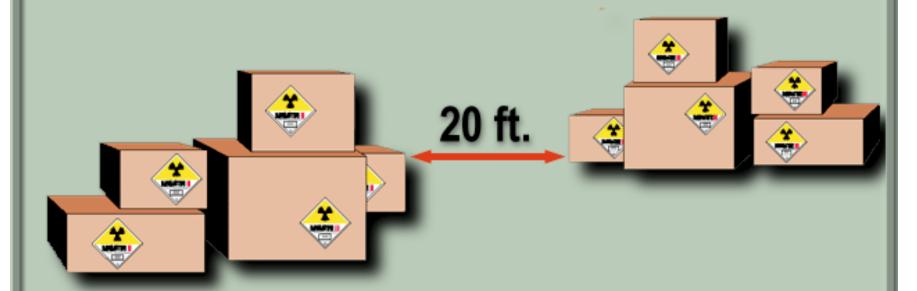
## Total Transport Index of All Packages Must Not Exceed 50 TI Does Not Include Exclusive Use Shipments



Transport Index (TI) 1.0 + 1.5 = Total TI 2.5

6A-41-10/99





Total Transport Index Must Not Exceed 50 TI for Each Group of Packages

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Radioactive Material - Exclusive Use

- Survey for Contamination
  - after each use
  - with radiation detection instruments
- Do not return to service
  - until radiation dose meets acceptable levels

# Motor Vehicle under exclusive use vs. Vehicle used solely to transport RAM

3" High On Both Sides of Exterior of the Vehicle



#### Hazardous Materials Permitted\* "For Hire" Passenger Motor vehicle



\*Certain Conditions & Limitations

### No Explosives or Hazardous Materials On "For Hire" Passenger Motor Vehicle Exceptions:

- Small arms ammunition
- O Emergency shipments:
  - drugs and medicines
  - chemicals and hospital supplies
  - munitions of war

